

4. The posterior part of the contact surface of each mandible is fitted for cutting, while the anterior part is fitted for grinding or crushing. (Plate 1, fig. 4c).

McPherson, Kansas.

January 15, 1914.

Now Lordsburg, Calif.

NOTE ON THE HARRIS COLLECTION OF HETEROPTERA.

BY J. R. DE LA TORRE BUENO.

During a recent visit to Boston, through the courtesy of Prof. C. W. Johnson I had the good fortune to examine the Harris collection of Hemiptera. Many of the insects, as is well known, passed through the hands of Thomas Say and were named by him and in the absence of types of his species they may be so regarded. The late Prof. P. R. Uhler also examined these insects at leisure and based on his study his authoritative paper "Notices of the Hemiptera Heteroptera in the Collection of the late T. W. Harris, M.D."¹

The custodian of the Boston Society of Natural History is to be congratulated on the excellent condition of these precious relics. Some one or two have suffered from *Anthreni*, but considering the great age of the collection, the bulk of the specimens are in a marvellous state of preservation. I shall not extend myself to repeat all the details given in the paper by Uhler cited, but certain notations on a few of the species will serve to clear up one or two obscure points.

Lygæus turcicus Fabr., No. 54. The specimens from Michigan under this label are the only ones correctly named. The others are *Lygæus kalmii* Stal, which is not mentioned by Uhler.

Gonianotus marginepunctatus Wolff, No. 65. The specimen under this label and number is the common Eastern *Emblethis vicarius* Horv.

Naucoris poeyi No. 148, "Florida, Doubleday" is *Pelocoris carolinensis* Bueno, characteristic.

Ranatra fusca P. B. No. 151, Harris No. 65, determined by Say according to Dr. Harris' manuscript catalogue, is undoubtedly *R. protensa* Mont. It is certainly not *nigra* H. S., as a careful

¹ Proc. Bost. Soc. N. H., XIX, 365-446, 1878

comparison of the insect with Herrich-Schaeffer's figure will show.

Ranatra quadridentata Stal No. 152. The specimen under this name and number is a typical *R. americana* Mont.

Belostoma americanum Leidy No. 155, Harris No. 109 is *Lethocerus obscurus* Duf.

Under the label *Notonecta insulata* Kirby, No. 156, are placed Harris' Nos. 17δ and 17ε which Uhler has referred to *N. undulata* Say in his work cited. He remarks that "It varies also in size, ranging from 9 to 12½ millims in length." The discrepancy in size arises from the fact that 17ε is *N. variabilis* Fieb. The other specimens are correctly labelled as they stand.

To recapitulate: The following species did not appear in Uhler's paper under their proper names, but as the species with which they are synonymous.

Lygæus kalmii Stal = *L. turcicus* Uhl., not Fabr. for all except those from Michigan, for the specimens under No. 54.

Emblethis vicarius Horv. = *Gonianotus marginepunctatus* Uhler, not Wolff. for specimen No. 65.

Pelocoris carolinensis Bueno = *Naucoris poeyi* Uhler, not Guérin, for specimen No. 148.

Ranatra protensa Mont. = *R. fusca* Uhl., not Palisot de Beauvois, for specimen No. 151.

Ranatra americana Mont. = *R. quadridentata* Uhl., not Stal for specimen No. 152. (N. B.—This applies to all the specimens from the Northern and Eastern United States, as well as Canada, so determined by myself and others, prior to 1910.)

Lethocerus obscurus Dufour = *Belostoma americanum* Uhl., not Leidy, for specimen No. 109.

Notonecta variabilis Fieb. = *N. undulata* Uhl., not Say, for specimen 17ε.

WOOD-BORING TRICHOPTERA.¹

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In the cold, alder-bordered streams of the uplands swamp near Ithaca, N. Y., are found Caddis-worms whose case-making habits

¹ Contribution from the Limnological Laboratory of the Department of Entomology in Cornell University.